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## Briefing Paper to Kentucky Dual Credit Task Force

February 15, 2007

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### **Introduction**

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The Kentucky Community and Technical College System has asked Jobs for the Future, a nonprofit national policy and research firm, to help the state's Dual Credit Task Force enhance dual enrollment opportunities for high school students. Through the Ford Foundation's Bridges to Opportunity Grant, KCTCS is sponsoring this work as part of its policy initiative to support career pathways. A new Vision Statement adopted by the Task Force positions dual enrollment as a way to improve student preparation for postsecondary education and training. It also recognizes that dual enrollment can help to ensure "curriculum standards and expectations will be aligned P-14."

JFF has experience and expertise about a number of dual enrollment program and policy approaches being applied nationally to achieve similar objectives. This briefing paper is the first of two phases of our work with Kentucky. In a later phase, JFF will advise the state about steps it could take to collect data that will help determine whether dual enrollment is meeting long-term state education goals.

This phase focuses on two immediate questions regarding eligibility and finance:

- 1) *How can Kentucky structure dual enrollment eligibility to maximize student access while maintaining high-quality, college-level standards?*

*Eligibility* addresses both the criteria by which students should be judged for dual enrollment participation and the opportunities and support available for all students to meet those criteria.

- 2) *How can Kentucky finance dual enrollment to achieve the Task Force's vision of improving high school achievement, postsecondary access and success, and workforce readiness for all students?*

*Finance* describes state options for funding dual enrollment and the courses and programs the state should or should not fund to achieve its goals.

Based on national research, promising policies from other states, and the Task Force's desire to judiciously expand access to dual enrollment, this paper provides a framework for evaluating and strengthening Kentucky's current policies. JFF recommends that the state adopt policies consistent with the principles below which emphasize **access, rigor, relevance, and high support**.

## **Principles**

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- All high school students should receive opportunities to take college courses based on demonstrations of their readiness in subject areas corresponding to the course(s) taken.
- The academic standards and assessments used to determine eligibility for college course taking should be consistent statewide and tied to transparent state standards and assessments aligned with standards for college and workforce readiness.
- The state should widely develop schools, programs, and courses that provide underrepresented and underprepared high school students with the support they need to become eligible for and succeed in college courses.
- Cost should not stand in the way of access for students who are eligible for college courses.
- The state should only fund courses and programs that lead to a postsecondary degree or occupational credential. At least some of these should be offered on college campuses.
- The state should adopt a do-no-harm approach to its current dual enrollment efforts, allowing them to continue. However, any state financial support for dual enrollment should require that new or existing programs conform to state dual enrollment policy.<sup>1</sup>

The rest of the paper first discusses the opportunities and challenges that the state should consider in strengthening dual enrollment. It then provides a brief rationale for the above principles and evaluates where Kentucky's current policies stand in relation to them, for eligibility and for finance. We stop short here of recommending specific policies for Kentucky. Such specifics are dependent on a state's policymaking history and culture, as well as on understanding local dual enrollment practices. JFF's research was not designed to understand these factors. However, we point to crucial questions for further discussion by the Task Force and provide examples from other states that can inform those discussions.

## **Dual Enrollment in Kentucky: Opportunities and Challenges**

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Kentucky has a strong tradition of educational leadership, commitment to improving college and workforce preparation, and dual enrollment participation. However, there are challenging issues to resolve before fulfilling the state's vision for dual enrollment. Yet there are also important opportunities for using dual enrollment to advance other high school reform efforts in Kentucky.

### **Kentucky can build upon the state's positive dual enrollment history.**

- By policy, local secondary school site councils must provide opportunities for students to pursue college-level learning through Advanced Placement (AP), International Baccalaureate, or dual enrollment options.
- Policies are intended to promote accessibility. In 2000, the state dropped a number of dual enrollment eligibility criteria tied to scaled test scores from national college admissions tests and student grade point averages. Instead, local site councils and postsecondary institutions now develop their own eligibility criteria.

- The state's Postsecondary Council on Education estimates that 15,865 high school students participated in dual enrollment in 2004-05.<sup>2</sup> This represents nearly 9 percent of all Kentucky high school students.<sup>3</sup>
- There are a number of local comprehensive dual enrollment programs in the state designed to support students in postsecondary courses. Kentucky is also considering initiating two to four early and middle college high schools over the next three to five years.

**Other Kentucky policies to improve high school achievement and college and workforce readiness can complement dual enrollment.**

- The state continues to strengthen its high school graduation standards and assessments so that they are aligned with the expectations of readiness for college and the workforce. As part of this effort, it will soon have end-of-course exams for math through Algebra II.
- A new, online Individual Learning Plan system will promote increased access to information and guidance resources for students, families, and schools – particularly to information about preparing for college or work after high school.
- The requirement that students take a college readiness exam in the tenth grade, the ACT in the eleventh grade, and an option of taking the WorkKeys exam in grades 10-12 is indicative of the state's desire to improve college and workforce outcomes for its citizens. High scores on these tests trigger opportunities for accelerated courses or receipt of a Kentucky Employability Certificate; low scores trigger supportive intervention.

**Some aspects of current dual enrollment participation in Kentucky raise concern.**

- It is not clear whether dual enrollment currently improves college-going for Kentucky's high school graduates. According to the Postsecondary Council on Education, only 32 percent of students who were dually enrolled in 2003-04 had matriculated into regular postsecondary study the next year. Academic course takers matriculated at a rate of 68 percent and technical/occupational course takers at a rate of 17 percent. Both rates leave room for improvement. However, the state needs a better understanding of the reasons for these low rates, and it should establish rational goals for postsecondary enrollment and completion for each group of dual enrollees.
- Dual enrollment students may take enrichment courses or developmental courses in college, which seems inconsistent with the purpose of improving postsecondary preparedness or attainment. Nationally, however, some community college-based programs work with overage, under-credited former high school dropouts for whom developmental courses might be a sensible option. Also, if rigorous statewide standards were established for developmental courses, they could provide an alternative pathway for underprepared high school students to prepare for college credit-bearing work.
- Because eligibility criteria are established locally, access to dual enrollment is likely to be uneven across the state. Some districts or colleges could be inhibiting students who might benefit. Others could be admitting students who are ill prepared.

## **Eligibility**

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Determining appropriate dual enrollment eligibility criteria should be driven by knowledge about who is best served by dual enrollment and under what conditions. A more detailed description of the research on this issue can be found in the appendix, but suffice it to say that data and analyses from other states overall are not yet advanced enough to answer this question definitively or with detail. However, research suggests that promising and successful programs are rigorous and have standards –prerequisites ensure that students are ready for postsecondary courses. The programs also provide high academic and social support, helping students to become eligible for postsecondary courses.

JFF's research of promising policies and programs nationally suggests that eligibility policies should avoid all-or-nothing rules that block access to all subjects because of a student's lack of proficiency in a single area. At any given time, young people may be ready for higher-level learning in one academic domain yet not in another. Also, students and teachers should clearly understand, and be motivated by, the standards they must meet to be eligible for dual enrollment. Dual enrollment is particularly motivating when it offers the prospect of getting a head start on college and saving on college costs.

## **What Kentucky currently does:**

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Kentucky has no statewide eligibility criteria. Rather, local site councils and postsecondary institutions develop their own eligibility criteria. Although many programs have some academic eligibility criteria, they are neither likely to be consistent statewide nor necessarily aligned with college and workforce readiness standards.

Recently, the legislature passed SB 130 requiring that by 2007-08 the state Department of Education administer a college-readiness test to tenth graders in English, reading, and math and the ACT exam at state expense to all eleventh graders. It also gives tenth through twelfth grade students an option of taking the WorkKeys assessment. Students whose scores “indicate a high degree of readiness for college” on the ACT or college-readiness test are to be counseled into “accelerated courses, with an emphasis on Advanced Placement classes.” Students scoring at an appropriate level on the WorkKeys are issued a Kentucky Employability Certificate. Students whose scores do not meet college- and work-ready thresholds on these exams are to receive “accelerated learning” interventions.

To support students in achieving college and work readiness standards, the state plans to use ACT's diagnostic assessment programs, PLAN and EXPLORE. Kentucky is also moving in the direction of initiating two to four early and middle college high schools over the next three to five years.

**When framed against the principles for dual enrollment eligibility, Kentucky’s current policies and practices raise important questions and opportunities.**

| <b>Principles:</b>  |   |
|---|---|
| <i>All high school students should receive opportunities to take college courses based on demonstrations of their readiness in subject areas corresponding to the course(s) taken.</i>  |   |
| <i>The academic standards and assessments used to determine eligibility for college course taking should be consistent statewide and tied to transparent state standards and assessments aligned with standards for college and workforce readiness.</i>  |   |
| <b>Current Policy/Practice</b>  | <b>Questions/Opportunities</b>  |
| <p>No statewide policy</p> <p>Under SB 130, new ACT and college readiness tests will be the basis for guidance into accelerated courses, primarily AP courses. Good performance on the WorkKeys will result in the receipt of a Kentucky Employability Certificate.</p>   | <p>Should Kentucky establish statewide eligibility rules?</p> <p>Can the emphasis of “accelerated learning” be extended beyond AP courses to include dual enrollment?</p> <p>How can SB 130’s testing initiatives be combined coherently with efforts to align the state’s high school exit and college and workforce readiness standards so that the addition of new tests does not confuse those who are to benefit from clearer signals of their college and workforce readiness?</p> <p>To promote access, can more than one statewide measure of student readiness be used? For example, could completion of the end-of-course exam in Algebra II also be a criterion? Can WorkKeys performance be a criterion for technical/occupational college courses?</p> <p>How can the state use its new on-line ILP system to make transparent to students, teachers, and families the standards they must achieve to be eligible for dual enrollment?</p> |
| <b>Principle:</b>   |   |
| <i>The state should widely develop schools, programs, and courses that provide underrepresented and underprepared high school students with the support they need to become eligible for and succeed in college courses.</i>  |   |
| <b>Current Policy/Practice</b>  | <b>Questions/Opportunities</b>  |
| <p>The state has a number of comprehensive dual enrollment programs and is moving in the direction of initiating early college high schools.</p> <p>SB 130 requires students who do not demonstrate college or workforce readiness to be guided to accelerated learning programs.</p> <p>State participates in ACT PLAN and EXPLORE diagnostic assessment programs.</p> | <p>How can the state promote more accelerated learning programs, such as schools or programs that prepare underserved students for college-level coursework?</p> <p>Can the state develop new course sequences that prepare students for and lead them into dual enrollment experiences?</p>  |

## **What Do Other States Do Regarding Dual Enrollment Eligibility?**

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Twelve states have statewide eligibility rules limiting participation to high school juniors and seniors, and seventeen states limit participation to students with minimum GPAs or standardized test scores.<sup>4</sup> Thirteen states, like Kentucky, leave eligibility to local institutions.

Few states have eligibility policies consistent with any, much less all, of the preceding principles. Until recently, state policymakers largely viewed dual enrollment as an acceleration opportunity for advanced students or as a way of supplementing the course offerings of rural schools. However, like Kentucky, some states are revising dual enrollment policies in order to improve college and workforce outcomes for more students, especially for those who traditionally have the weakest outcomes. The Task Force may find some policies from these states instructive.

### **Texas: Statewide eligibility standards and supports**

Texas illustrates one way to establish dual enrollment eligibility criteria tied to efforts to align high school standards with college and workforce readiness. It is also providing support and accessibility to programs that prepare more students to meet these standards.

Eleventh and twelfth graders can enroll in dual enrollment on the basis of passing the tenth-grade Texas Assessment of Knowledge and Skills in the relevant subject area or by attaining an acceptable score on one of the college-readiness tests accepted by the Texas Success Initiative. Colleges can impose additional standards. Like Kentucky, Texas is a state in the American Diploma Project Network aligning its high school and college standards.

Texas also has a robust early college high school initiative, with over 15 in operation or being planned. While there is a cap on the number of college courses that high school students can take in a given semester, early college high school students may enroll in college courses without regard to these restrictions or those limiting enrollment to eleventh and twelfth graders.

### **New York: College Now Foundation Courses**

The College Now program provides one example of courses that can be developed to support students who do not initially meet dual enrollment eligibility requirements.

The state of New York essentially has no dual enrollment policy, but for several years, the City University of New York has operated the *College Now* program that includes an opportunity for nearly 15,000 of the city's high school students annually to take college courses.<sup>5</sup> CUNY's large scale makes its dual enrollment approach instructive to states.

College Now college courses at CUNY senior colleges are limited to students scoring 75 or greater on the state's English Arts and Math A Regents exams. However, the program has enlisted high school and college faculty to design "Foundation Courses" in order to prepare academically underprepared students for college and dual enrollment. These are high school elective courses that teach the discipline-specific skills expected by colleges and universities, based on seminal research by the Center for Education Policy's "Standards for Success." CUNY's intention is that these courses will prepare students for college-credit-bearing courses as a capstone program experience.

## **Rhode Island: Embedding Eligibility into High School Graduation Requirements**

Rhode Island shows how standards and eligibility for dual enrollment could become fully integrated into a state's system of high school standards and assessments.

Rhode Island has had an idiosyncratic collection of dual enrollment programs that evolved with little state policy, but it is the process of exploring how to use dual enrollment to create a performance-based pathway through high school into college. As imagined, one idea is that the new system would allow students to earn up to a semester of transferable college courses and use some of them as a demonstration of high school proficiency in the six designated areas of core learning. Eligibility criteria would be tied to the new performance-based assessment system (the *High School Diploma System*); it also would be discipline-specific and transparent.

The six areas would align with the learning outcomes for key, general education college courses. College courses could replace high school courses without concern for high school seat time requirements, so students could move ahead in the core areas as soon as they were ready.

## **Funding**

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Research on dual enrollment financing is underdeveloped. Answering questions about the return on a state's investment requires good data about costs and longitudinal student outcomes. States have not systematically collected these data. That said, much is known about how various states finance dual enrollment and how those funding arrangements are likely to encourage different kinds of participation and programs.

If Kentucky wants to use dual enrollment to prepare more students for college and workforce expectations, then it should structure dual enrollment finance according to principles that advance access, rigor, relevance, and high support. For example, unless they are provided by the state, tuition costs could hinder access for low-income students. Other costs affecting access are textbooks and fees.

Finance also relates to the courses and programs a state should or should not fund to achieve its goals. Students should experience the rigors of authentic college courses that help them to learn the skills and gain the credentials needed for careers with family-sustaining wages, but college campus-based courses are more expensive to offer yet motivate students by exposing them to the college environment. Moreover, high-support dual enrollment programs entail additional costs for colleges and high schools to create the academic, social, and financial supports needed by the target population.

## **What Kentucky currently does:**

High schools in Kentucky can receive Average Daily Attendance (ADA) for dual enrollees taking dual credit courses. Unlike many states, state funding for colleges in Kentucky is not enrollment-based (i.e., full-time equivalent or FTE), and this is one way that many states support colleges serving dual enrollees. Kentucky does not appropriate FTE or other funding to colleges for dual enrollment. Local high schools and colleges, according to the Kentucky Postsecondary Council

on Education, exemplify a range of funding arrangements, but across them, students and families frequently bear the cost of discounted or full tuition.

In considering what dual enrollment courses Kentucky might support in the future, it is helpful to understand what students are taking now. Dual enrollees take a variety of postsecondary courses. According to the Postsecondary Council, in 2003-04 about 20 percent of dual enrollees took academic courses, 60 percent took technical/occupational courses, 16 percent took business/IT/pre-professional courses, and 4 percent took personal improvement courses. Among dual enrollees taking one or more college courses for dual credit, only 6.4 percent did so in academic courses; nearly 52 percent did so in technical/occupational courses. In that same year, 1,257 dual enrollment college courses (about 3.6 percent) were remedial.

According to a preliminary report of findings from a 2006 survey of the state's postsecondary institutions, "Nearly all the respondents in all three [postsecondary] sectors teach high school students in regular courses with college students."<sup>6</sup> The survey also showed that almost all postsecondary institutions offered college courses "to high school students on-campus (or at extended campus sites) and at the local high school." Several KCTCS institutions reported offering courses at Area Technology Centers and online.

Starting in 2007-08, the state will administer a college readiness exam in the tenth grade and pay for all eleventh grade students to take the ACT. Students in the tenth through twelfth grades may also take the WorkKeys exam. Students who do not demonstrate college or workforce readiness will be counseled into accelerated learning. Those that are successful will be counseled into accelerated courses, with an emphasis on AP courses, and in the case of WorkKeys, students who do well will receive a state Employability Certificate.

**When framed against the principles for dual enrollment finance, Kentucky's current policies and practices raise important questions and opportunities.**

| Principle:  |   |
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| <i>Cost should not stand in the way of access for students who are eligible for college courses.</i>  |   |
| Current Policy/Practice   | Questions/Opportunities   |
| The state does not have any rules regarding the provision of tuition costs for dual enrollees. Thus, many students bear the cost which is likely to lead to uneven access.                            | Should the state promise free or discounted dual enrollment to certain courses for eligible students?                                       |
| Principle:  |   |
| <i>The state should only fund courses and programs aligned with its goals: those that lead to a postsecondary degree or credential. At least some of these should be offered on college campuses.</i> |   |
| Current Policy/Practice   | Questions/Opportunities   |
| Students are allowed to take a variety of courses, including developmental courses, based on local discretion.  | If the state were to support more dual enrollment and dual credit, should it restrict support to courses leading to a degree or credential? |



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|   | <p>Are there cases when the state might fund dual enrollment programs that use some developmental courses? For example, nationally there are promising college-based programs that offer these courses to overage, under-credited high school dropouts. Also, if rigorous statewide standards were established for developmental courses, they could be an alternative pathway for underprepared high school students to prepare for college credit-bearing courses.</p> <p>What college enrollment and completion rates should the state expect of dual enrollees in academic courses and in technical/occupational courses?</p>  |
| <b>Principle:</b>   |  |
| <i>The state should widely develop schools, programs, and courses that provide underrepresented and underprepared high school students with the support they need to become eligible for and succeed in college courses.</i>  |  |
| <b>Current Policy/Practice</b>  | <b>Questions/Opportunities</b>   |
| <p>The state does not provide funding for colleges which could encourage more such programs (see discussion of “hold-harmless” funding on pg. 10).</p> <p>SB 130 requires students who do not demonstrate college readiness to be guided to accelerated learning programs.</p> <p>Among dual enrollees taking one or more college courses for dual credit, only 6.4 percent did so in academic courses, while nearly 52 percent did so in technical/occupational courses.</p> | <p>How can the state stimulate and support more programs and schools that employ dual enrollment and target underrepresented and underprepared students?</p> <p>Can colleges be offered more incentives to offer courses to high school students?</p> <p>Should the state encourage more dual crediting in academic areas? Dual crediting is essential for high-support dual enrollment models, such as early college high schools and college-based programs that serve under-credited, overage high school students.</p> <p>What funding is available for accelerated learning to prepare students for college-level work? Is it adequate? Can the acceleration lead to dual enrollment?</p> |

### How do other states finance dual enrollment?

The primary costs of dual enrollment are tuition and state reimbursement to institutions, often based on per-pupil attendance in high school (Average Daily Attendance or ADA) or enrollment in college (Full Time Equivalent Enrollment or FTE). Books, fees, and transportation are other substantial costs. States have a variety of funding arrangements requiring different parties to bear different shares of these costs. Although states may specify that courses are to provide enrichment, academic acceleration, or career preparation, few are specific as to what college courses are eligible for state funding.

As of 2005, only six states paid for the tuition costs of dual enrollees.<sup>7</sup> In eleven, students are required to pay, and in many more, there is no state provision for tuition, leaving it to local institutions to determine or pass this cost onto students.

In 2005, Nancy Hoffman examined state dual enrollment policies to understand which were most likely to leverage dual enrollment as “a strategy for promoting college access and credential attainment.” One key feature is that states “hold harmless” the colleges and high schools from losing FTE or ADA for serving dual enrollees. That is, colleges should receive FTE for the costs of educating the student, and high schools should not have disincentives in lost ADA for having students do some college work. Ten states hold harmless secondary and postsecondary institutions.<sup>8</sup>

State provision of tuition and hold-harmless funding are also supportive of early and middle college high schools and other “comprehensive” program approaches that target lower-income students and entail coordination and student academic support costs. A few states have also added special incentives and accommodations for these programs (see North Carolina and Pennsylvania below), including paying for books.

Just as with eligibility policies, no one state has all of the conditions that would advance JFF’s recommended principles, but a few are nonetheless notable.

### **North Carolina: Investing in Learning and Earning**

North Carolina creates broad access to non-remedial, college courses for high school students through its dual enrollment financing, and it also promotes high-support dual enrollment programs.

North Carolina has many favorable funding conditions for high school-postsecondary partnerships that promote dual enrollment opportunities. The state views these new high schools and programs as a key strategy for creating a more educated workforce and a healthy state economy. High schools and colleges can claim per-pupil funding from the state for dual enrollees, as long as the college courses are non-remedial. The state also waives community college tuition for high school students.

Through its Learn and Earn initiative, the state is creating 75 early college high schools. At the same time, it has authorized and encouraged similar high school-college partnerships through the Innovative Education Initiatives Act.<sup>9</sup> Learn and Earn schools receive state funding for K-14 support services, partnership development, and professional development. The FY 2006-07 budget for Learn and Earn school creation was nearly \$10 million.

### **Utah: State Funding for CTE Dual Enrollment Courses**

Career and Technical education plays a large role in the Utah’s high school reform efforts and is an integral feature of Utah’s dual enrollment program, known as “concurrent enrollment.”

Utah funds concurrent enrollment courses that are on an approved state list. These include not only academic courses but also CTE courses reviewed by content specialists at the Utah Department of Education to ensure coverage of state standards. About half of the concurrent credits earned in 2003-04 were in CTE areas.<sup>10</sup> The state only funds school districts based on the college credits successfully completed by dual enrollees. State funds may be used for tuition, staff development, and

other program-related costs such as textbooks. In 2006, the state spent about \$5.5 million on concurrent enrollment.

CTE staff work in tandem with higher education officials to provide leadership for the state's concurrent enrollment programs, as well as for the state's broader K-16 initiatives.

### **Pennsylvania: Incentives to Target Low-income Students**

Pennsylvania offers incentives for dual enrollment programs serving low-income students.

In 2005, Pennsylvania approved a \$5 million dual enrollment program. It is a companion to Project 720, the state's high school reform initiative focused on raising graduation course requirements and student preparation for postsecondary education. High school-postsecondary partnerships can apply to the state for grants to promote dual enrollment. The state reserves up to \$400,000 to encourage the participation of low-income students in dual enrollment, given to programs based on the number of low-income students they serve. Half of this state funding is reserved for early college high schools, middle colleges, or "Gateway to College" programs targeting high school dropouts.

### **Georgia: State Financial Aid for Dual Enrollees**

Georgia supports course taking leading to college degrees by giving students early access to state financial aid.

Dual enrollment students taking a state-approved college course are eligible for "ACCEL" awards, granted at the same full public tuition rate as the state's "HOPE" Scholarships. ACCEL, like HOPE, includes state-approved mandatory college fees and a book allowance. Students can only use the funds for "college degree-level" courses that can be dual credited to high school graduation requirements in the areas of English language arts, mathematics, social studies, science, and foreign languages. ACCEL awards are subtracted from each student's HOPE eligibility credit-hour cap.

In 2006, Georgia budgeted \$6 million for the program.

## **Conclusion and Additional Questions**

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Kentucky has a robust tradition of education reform, including its most recent efforts across K-16 to align high school exit standards with the skills needed for success in college or the workforce. The state has an opportunity to harness the array of local dual enrollment activity it stimulated seven years ago to improve college and workforce success rates. It can learn from other states seeking to achieve similar goals. No one state has a model that Kentucky could or would want to adopt wholesale. Rather, the state would be best served by ensuring that dual enrollment policies complement its unique needs and education policy initiatives. Based on national research, JFF suggests that any new policies cohere around the tenets of access, rigor, relevance, and high support.

For this briefing paper, JFF was asked to discuss dual enrollment eligibility and finance issues. However, our experience suggests that as Kentucky focuses on these areas, it should do so with an eye toward related issues. Two areas that seem particularly relevant are teachers and quality.

*How can Kentucky ensure that there are enough high-quality instructors to expand access to dual enrollment courses?*

Does state policy enable college instructors to teach courses for high school credit in addition to college credit? How can it increase the number of high school teachers who meet the Southern Association of Colleges and Schools' requirements for adjunct college faculty? There is great latitude under the U.S. Department of Education's non-regulatory guidance about the conditions under which college teachers may teach high school students.<sup>11</sup> However, the question of quality teaching runs deeper than qualification issues. Another concern is how to widen teacher preparation routes and increase professional development for teachers of dual enrollees.

*How can Kentucky ensure that dual enrollment courses are of high quality?*

JFF is recommending that the state design dual enrollment to promote college and workforce preparation for a broad range of students. In doing so, we recommend multiple measures to assess readiness for college credit courses and more routes for students to get ready. One way to ensure quality in such a multifaceted system is to align assessments, eligibility criteria, and courses with clear state standards. For example, the state might tie these key aspects of dual enrollment to nationally benchmarked standards for college and workforce readiness in math and English (e.g., the American Diploma Project).

We look forward to the rich discussions that we hope this paper prompts.

## **APPENDIX**

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### *Synopsis of Relevant Dual Enrollment Research*

Research about dual enrollment is limited, but the little that does exist is hopeful about its effects and suggestive about best practices for program design. It is safe to say that dual enrollment is prevalent nationally. Forty states have policies establishing dual enrollment programs. According to the National Center for Education Statistics, there were an estimated 1.2 million enrollments in dual credit courses during 2002-03.<sup>12</sup>

We know less about who dual enrollees are because few programs and states collect or analyze data disaggregated by students' social or academic backgrounds. There also is little research about what kinds of college courses dual enrollees take. The absence of the preceding makes it difficult to test the effects of dual enrollment, because there is no way to draw conclusions based on the comparability of participants and non-participants and the nature of students' course experiences.

Still, some dual enrollment outcomes are consistent and positive. For example, dual enrollees largely succeed in their college courses. Florida, with among the nation's most comprehensive dual enrollment programs and K-20 data systems, estimated that approximately 77 percent of dual enrollees in 2004 earned a C or better in college courses – both those taught by community college professors and those taught by high school teachers serving as adjuncts. Of 10 of the first early and middle college high schools nationally, 633 students enrolled in 1,893 college courses in 2004-05, with a pass rate of 96 percent.

Moreover, studies employing some controls for previous academic achievement have found that dual enrollees who go onto college in Arizona and New York City – large programs serving students from diverse racial backgrounds – have significantly higher GPAs or persistence rates than college students with no dual enrollment background. The Kentucky Postsecondary Council's research suggests that dual enrollment has a modest, positive effect on sophomore year GPA in four-year colleges, controlling for ACT scores, although it has no effect on retention.

Any review of state dual enrollment outcome data should consider that students in academic dual enrollment courses are already likely to have at least moderate levels of academic proficiency. Most states and programs have some academic eligibility prerequisites, such as minimum grade point averages or standardized test scores.

However, some programs target students who are underrepresented in higher education (i.e., low-income or racial minority students) or academically at risk. A study of state and local program evaluations by the American Youth Policy Forum suggests that of those programs, the ones that appeared to have positive data on high school and college-going outcomes possessed the following qualities:

- *High Support:* They provided “a range of extra supports for students . . . from intensive preparatory coursework to advising services.” Specifically, these included “caring adult advisors, academic assistance and tutoring, college success classes, and a safe environment and peer support network.”<sup>13</sup> These are features that tend to be inherent in early and middle

college high schools and other models that the Community College Resource Center has dubbed “Enhanced Comprehensive” dual enrollment programs. In addition, positive evidence across all the programs was linked to collaboration between high school and postsecondary faculty and administrators, which promoted shared responsibility for dual enrollees.

- *Rigor and Standards:* Positive results across programs were related to assurances that college courses were rigorous and high quality. These assurances included some prerequisites based on student demonstrations of academic readiness and strong faculty preparation and qualifications. Course location was another factor. Courses on college campuses are likely to help students identify themselves as college students, acclimate to the college environment, and expose them to postsecondary academic expectations. The study noted that courses offered on the high school campus should be supplemented by college campus exposure.

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- 1 The state might curtail certain practices that are clearly unaligned with its goals, such as dual crediting of remedial courses, whether or not programs choose to receive state dual enrollment support.
  - 2 Kentucky Council on Postsecondary Education (2006): *The Dual Enrollment of High School Students in Postsecondary Education in Kentucky, 2001-02 to 2004-05*.
  - 3 Percentage calculated based on high school enrollment figures from the KentuckyMax data warehouse.
  - 4 Karp, Melinda, Thomas Bailey, and Katherine Hughes (2005): *State Dual Enrollment Policies: Addressing Access and Quality*. Community College Resource Center for the U.S. Department of Education, Office of Vocational and Technical Education.
  - 5 2004-05 figure from forthcoming paper by Meade, Terry, and Hofmann, Eric. (2007) in *High School Through College: Integrating Grades 9-14*. Eds. Hoffman, Vargas, Venezia, and Miller (JFF). Harvard Education Press.
  - 6 March 29, 2006: “Dual Enrollment Task Force, Study, and Preliminary Survey Results.” P-16 Council Agenda Item VI-A.
  - 7 Karp, Melinda, Thomas Bailey, and Katherine Hughes (2005): *State Dual Enrollment Policies: Addressing Access and Quality*. Community College Resource Center for the U.S. Department of Education, Office of Vocational and Technical Education.
  - 8 Ibid.
  - 9 North Carolina, Senate Bill 656, Session 2003
  - 10 Hoffman, Nancy. (2005). *Add and Subtract: Dual Enrollment as a State Strategy to Increase Postsecondary Success for Underrepresented Students*. Boston: Jobs for the Future.
  - 11 From Non-Regulatory Guidance. August 3, 2005. *Highly Qualified Teachers: Improving Teacher Quality State Grants, ESEA Title II, Part A. 2005*. Academic Improvement and Teacher Quality Programs, Office of Elementary and Secondary Education U.S. Department of Education, pg. 17:  
 “Must a college or university faculty member who teaches core academic subjects to secondary school students be highly qualified? A faculty member must be highly qualified if the LEA directly employs him or her. If, on the other hand, an LEA (1) pays tuition to an institution of higher education to permit students to take core academic courses at the college or university, or (2) acquires the teaching services of the college or university faculty member at the LEA’s school through a contract or a memorandum of understanding with that individual’s institution of higher education, then the faculty member is not an employee of the LEA and is not subject to the highly qualified teacher requirements.”
  - 12 National Center for Education Statistics. (2005): *Dual Credit and Exam-Based Courses in U.S. Public Schools: 2002-03*. Washington, DC: National Center for Education Statistics.
  - 13 American Youth Policy Forum (2006): *The College Ladder: Linking Secondary and Postsecondary Education for Success for All Students*.